



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/573,968

03/30/2006

Ryuichiro Yoshimura

Q94059

1744

23373 7590 09/25/2009  
SUGHRUE MION, PLLC  
2100 PENNSYLVANIA AVENUE, N.W.  
SUITE 800  
WASHINGTON, DC 20037

EXAMINER

PHAM, HAI CHI

ART UNIT

PAPER NUMBER

2861

MAIL DATE

DELIVERY MODE

09/25/2009

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/573,968	<b>Applicant(s)</b> YOSHIMURA ET AL.	
	<b>Examiner</b> Hai C. Pham	<b>Art Unit</b> 2861	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 04 September 2009.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,21 and 23-30 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,21 and 23-30 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 March 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 102 & 103***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 21 and 23 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Onodera et al. (US 2001/0026531).

Regarding claim 1: Onodera et al. discloses an optical recording medium DSC and an optical disc apparatus, the optical recording medium comprising a data recording layer 1a (on side 1 of the disc) which is provided to record contents data upon irradiation of an optical beam (Fig. 1a) [0032] [0033], and a visual information recording layer 2a (on side 2 of the disc) including a visual information recording area provided for recording only visual information (Fig. 1b) [0033], which is visually recognizable, by irradiating the optical beam, and a visual information management

Art Unit: 2861

area (ring shaped area of pit art 7) (Fig. 5), where first recording layer information is previously recorded so as to be readable (the ring shaped pit art 7 including special data such as information regarding the location the pit art 7, is recorded in advance) [0059], wherein the visual information recording layer 2a is formed on a side opposite to the data recording layer 1a (Figs. 1a & 1b), and the first recording layer information 7 includes information indicating that the layer when the first recording layer exists is the visual information recording layer 2a (the ring shaped pit art 7 is used to indicated the existence and the proper location of the visual information recording layer or program area 2a) [0056] and at least one of visual information management information indicative of presence or absence or record of visual information onto the visual information recording area and the area information indicative of the recordable area of the visual information on the visual information recording area 2a (the ring shaped pit art 7 is used to indicate the limit of the visual information area or program area 2a in the radial direction, to be located inside of the ring shaped pit art 7) [0056]-[0058].

Regarding claim 21: Onodera et al. further teaches the first recording layer information being regularly arranged in the visual information management area (the ring shaped pit art 7 is used to manage the image information recording to be processed within the program area 2a) [0056]-[0058].

Regarding claim 23: Onodera et al. still further teaches any one of visual information management information indicating whether or not record of the visual information exists in the visual information recording area and area information

Art Unit: 2861

indicative of a recordable area of the visual information is recorded in the visual information management area (the ring shaped pit art 7 is used to indicate the limit of the visual information area or program area 2a in the radial direction, to be located inside of the ring shaped pit art 7) [0056]-[0058].

4. Claims 24, 25, 29, 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Onodera et al. in view of Morishima et al. (US 7,082,094).

Regarding claim 24: Onodera discloses all the basic limitations of the claimed optical recording medium (please see paragraph 3 above) and further teaches the optical disc apparatus comprising an input device, i.e. keyboard 32 or a personal computer, which inputs the visual information to be recorded (Fig. 10) [0134], a pickup 38 which is used to record the visual information thus inputted, a visual-information dedicated drive signal generating device, i.e. LD drive circuit 37, which generates a visual-information dedicated drive signal for driving the pickup in accordance with the visual information thus received (Fig. 10), a first detection device which detects the first recording layer information recorded in the visual information management area of the visual information recording layer (the system controller controls the optical pickup 38 to move to the label side pit art 7 to read the proper address data), and the optical beam irradiates the visual information recording layer, the pickup records the visual information on the visual information recording layer in accordance with the visual information-dedicated drive signal (Fig. 10).

Art Unit: 2861

Although Onodera et al. teaches the optical pickup 38 reading the printing information recorded in the label side pit art 7 and automatically goes on to print the visible image on the label side 2 of the optical disc, knowingly understood that the label side of the optical disc is facing the optical pickup 38, Onodera et al. however fails to explicitly teach the determining device which determines a side where the optical beam is irradiated on the optical recording medium in accordance with the result of the detection by the first detection device (claim 24), and the second determining device which determines, in accordance with a result of the detection obtained by the second detection device, whether or not it is possible to record visual information onto the optical recording medium, which is irradiated by the optical beam (claim 25).

Morishima et al. discloses an optical disc apparatus comprising an optical pickup 10 to detect the ATIP data so as to recognize the data recording side of the optical disc is actually facing the optical pickup 10, and the same optical pickup 10 to detect the data code for the disc ID recorded onto the label recording layer of the optical disc in order to determine that the label recording side of the optical disc is actually facing the optical pickup 10 (col. 18, lines 4-54).

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify the device of Onodera et al. by incorporating the teaching of Morishima et al. in implementing the discrimination means for determining the proper label surface of the disc through reading the content of the

Art Unit: 2861

image information area management in order to prevent incorrect printing of the visible image on the data recording layer and vice versa.

Regarding claims 29 & 30: Onodera et al. also fails to teach the pickup recording the visual information onto the optical recording medium by irradiating a laser beam on a side of the data recording layer of the optical recording medium.

Morishima et al. teaches the optical pickup 10 recording the visible image onto the visible image recording layer by irradiating the laser beam from either surface of the optical disc by properly adjusting the distance between the optical pickup 10 and the image/data recording layer of the optical disc (Figs. 26 & 28) (col. 27, line 58 to col. 28, line 47).

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify the device of Onodera et al. so as to irradiate the laser beam data side of the optical disc to recording the visible image onto the image recording layer by providing the mechanism to move the optical pickup at the proper distance from the image/data recording layer to record the visible image or the data information into the proper recording layer as taught by Morishima et al. in order to record the visible image without having to flip the optical disc.

5. Claim 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over Onodera et al. in view of Morishima et al. as applied to claim 24 above, and further in view of Anderson et al. (US 6,778,205).

Onodera et al. in view of Morishima et al. discloses all the basic limitations of the claimed invention including a contents-data dedicated drive signal generating device that, when the contents data are inputted into the input device, generates a contents-data dedicated drive signal for driving the pickup in accordance with the contents data thus inputted (Morishima et al., col. 13, lines 30-40).

Onodera et al. in view of Morishima et al. fails to teach the data recording pickup that is different from a visual-information recording pickup for recording the visual information and that records the contents data into the data recording layer in accordance with the contents-data dedicated drive signal.

Anderson et al. teaches an optical disc drive comprising a write laser head 108a to record data information on the data side optical disc 112 and a separate labeling write laser head 108b dedicated to write a visible image on the label side of the disc opposite to the data side such that the user is not required to flip the disc to record the label after the data recording on the opposite side of the disc is completed (Fig. 4), wherein the data write laser beam 402 and the labeling write laser beam 404 have different wavelength (col. 5. line 43 through col. 6, line 14).

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify the device of Onodera et al. by incorporating a data recording pickup different from the visual-information recording pickup as taught by Anderson et al. such that the user does not have to flip the disc over for recording on the opposite face as it is required for the case of using a single head for recording both data and image information as suggested by Anderson et al.



6. Claims 27, 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Onodera et al. in view of Morishima et al. and of Anderson et al. as applied to claim 26 above, and further in view of Eguchi et al. (US 5,473,154).

Onodera et al. in view of Morishima et al. and Anderson et al. discloses using separate optical pickups having laser light sources of different wavelengths to write data information and image information, respectively, of the opposite faces of the optical disc (Anderson et al., col. 5, line 43 through col. 6, line 14), but does not explicitly teach the visual information recording pickup having a numerical aperture (NA) lower than that of the data recording pickup (claim 27), and having a wavelength longer than that from the data recording pickup (claim 28).

Regardless, Anderson et al. does teach the labeling write laser beam 404 being significantly wider than the data write laser beam 402, the data recording having a higher density than it is required for labeling (col. 6, line 7-14). Eguchi et al. teaches that in order to obtain a data recording with higher density, it is necessary to shorten the wavelength of the laser beam and/or to increase the numerical aperture NA of the objective lens (col. 1, lines 17-27). In other words, visual information recording pickup having a numerical aperture (NA) lower than that of the data recording pickup, and having a wavelength longer than that from the data recording pickup.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify the device of Onodera et al. by incorporating the teaching of Eguchi et al. in providing a longer wavelength laser beam and a lower

Art Unit: 2861

numerical aperture objective lens for the labeling write laser beam since the visible image writing does not required a high density recording as suggested by Eguchi et al.

### ***Response to Arguments***

7. Applicant's arguments with respect to claims 1, 21 and 23-30 have been considered but are moot in view of the new grounds of rejection.

### ***Contact information***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hai C. Pham whose telephone number is (571) 272-2260. The examiner can normally be reached on M-F 8:30AM - 5:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Luu can be reached on (571) 272-7663. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2861

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Hai C Pham/  
Primary Examiner, Art Unit 2861  
September 23, 2009